ATTACHMENT D
SCOPE OF WORK

Energy Conservation Measures to Be Implemented

General:
Chevron ES shall provide design, engineering, and construction services as described in this Energy Services Contract as necessary to implement the Scope of Work described herein:

Energy Conservation Measures:

ECM 1: Install Variable Frequency Drives and Controls on Fan Motors

Scope for Civic Center:

Modify the existing constant volume system by providing Variable Frequency Drives ("VFDs") for the ten supply fan motors in the ten (10) Carrier 48MA units. Provide and install static pressure sensors on each unit to provide and pressure indication to manage the speed of the supply fan motor. Provide and install in each of the fifty nine (59) zones new temperature and CO2 sensors to provide an indication of the actual environment in the building. Temperature and CO2 levels will provide the demand control information necessary to control the fifty nine (59) newly installed electric dampers in the ductwork. Dampers will be operated to maintain set-point temperature within an acceptable range.

- Install new opposed blade damper in each zone supply duct with an electric actuator to be controlled by the new DDC controls provided.
- Provide and install new thermostats and CO2 sensors to communicate with the controls and VFD operation on each rooftop unit. VFDs will be installed in NEMA 3R enclosures without a by-pass.
- Network all units together for communication.
- Provide and install duct static pressure sensors for each unit to operate the VFDs and manage fan speed.
- Provide and install controls to manage the supply fans and zone operation.
- Provide and install front-end graphics and software for user interface.
- Commission the new controls.

Scope for Library:

Provide and install variable air volume system operation by installing Variable Frequency Drives on the supply fans and the power exhaust fans. Provide and install controls to operate newly installed VFDs and sensors.

- Close the existing duct bypass on each AC unit and seal duct between supply and return mains.
- Install VFDs on each air conditioning unit to control both the supply air fan and power exhaust fan in NEMA 3R enclosure.
- Provide and install new temperature sensors to accommodate the new control system.
- Provide and install new actuators on existing dampers fro economizer operation.
- Provide and install CO2 sensors in each of the 21 zones.
- Commission the new controls.

ECM 2: Streetlight Lighting Efficiency Upgrades

Scope:

Retrofit existing high pressure sodium cobrahead fixtures with new LED fixtures. Street light retrofits will include a new photo-sensor and wattage label. A comprehensive as-built template provided by PG&E will be used to log the new LED wattage replacement. This will allow PG&E to change each fixture to the new lower tariff rate.

Scope is applicable for 3,086 roadway fixtures listed on PG&E's LS2-A BRIO street light inventory.

- Retrofit 1,251, 70w high pressure sodium cobra head street lights with LED
- Retrofit 758, 100w high pressure sodium cobra head street light with LED

- Retrofit 208, 150w high pressure sodium cobra head street light with LED
- Retrofit 723, 200w high pressure sodium cobra head street light with LED
- Retrofit 135, 250w high pressure sodium cobra head street light with LED
- Retrofit 6, 310w high pressure sodium cobra head street light with LED
- Retrofit 5, 400w high pressure sodium cobra head street light with LED

ECM 3: Interior and Exterior Lighting Efficiency Upgrades

Interior Lighting Upgrading to Existing Lamps and Ballasts Scope:

This scope of work is applicable for the following Buildings: Civic Center,; Fire Stations 16, 17, 18; Library; Senior Center. Refer to table for quantities and fixtures.

- Retrofit existing linear 4 ft. linear fluorescent lamps and ballasts with third-generation, 28-watt T8, long-life, 4 ft. linear fluorescent, 4100 Kelvin lamps and ultra-efficient instant start and program start electronic ballasts.
- Areas with three (3) or four (4) older generation T8, 4 ft. fluorescent lamps and electronic ballasts will be retrofitted with a specular reflector de-lamp kit, two (2) 4 ft. linear fluorescent 28-watt T8, long-life, 4100 Kelvin lamps and 2-lamp, program start electronic ballasts.
- Existing T8 2-ft U-tube fluorescent lamps will be replaced with two (2) 2 ft., 17w T8s, ultra-efficient electronic instant-start ballasts and specular reflector de-lamp kit.
- Existing 2x2, 4-lamp F17T8 recessed fixtures will be de-lamped to two (2) 2 ft. 17w T8's, third generation, long-life fluorescents, ultra-efficient high-output instant-start electronic ballasts and specular reflector de-lamp kit.
- Replace incandescent PAR flood lamps with LED PAR LED flood lamps.
- Replace Halogen incandescent MR16 lamps with MR16 LED lamps.
- Install infrared occupancy sensor in rooms where specified with either a ceiling mount or wall-switch module.

Exterior Lighting Efficiency Upgrade Scope:

This scope of work is applicable for the following Buildings: Civic Center, and Library. Refer to table for quantities and fixtures.

- Retrofit post-top parking lot high pressure sodium or metal halide fixtures with induction or LED retrofit kit (lamp & ballast as specified).
- Retrofit wall-mount high pressure sodium or metal halide fixtures with induction or LED retrofit kit (lamp & ballast as specified).
- Retrofit area flood high pressure sodium or metal halide fixtures with induction or LED retrofit kit (lamp & ballast as specified).

Sensor Quantity by Site

Building	Wall	Ceiling
Civic Center	72	6
Fire Station 16	8	0
Fire Station 17	19	0
Fire Station 18	17	0
Library	48	3
Police Wing of Civic Center	0	7
Senior Center	11	1
total	**175**	**17**

Lighting Quantity by Site

Building	Retrofit Code	ECM Description	Total
CIVIC CENTER	1383LED	RELAMP WITH LED 1383	48
	15WLEDR30	LED 15WATT PAR30 SCREW IN	13
	18WLEDPAR	NEW 18W PAR38 SCREW IN	10
	1L2T8	(1) 2' 17W T-8 Lamps, (1) Prog Start Elec Bal	7
	1L3T8	(1) 3' 25W T-8 Lamps, (1) Prog Start Elec Bal	19
	1L4T8LP	(1) 4' 28W T-8 Lamp, (1) LP Prog Start Elec Bal	2
	2L2T8	(2) 2' 17W T-8 Lamps, (1) Prog Start Elec Bal	5
	2L3T8	(2) 3' 25W T-8 Lamps, (1) Prog Start Elec Bal	24
	2L4T8LP	(2) 4' 28W T-8 Lamps, (1) LP Prog Start Elec Bal	194
	2L4UT86	(2) 30W U-lamp w/ (1) Prog Start Elec Bal (2x2) 6"-LP	1
	3L4T8LP	(3) 4' 28W T-8 Lamps, (1) LP Prog Start Elec Bal	44
	50WMHKIT	RETROFIT TO 50 MH	40
	6L4T8LP	(6) 4' 28W T-8 Lamps, (2) LP Prog Start Elec Bal	9
	CATHKIT	T-1 XTRABRIGHT COLD CATHODE KIT	15
	NF150FLD	NEW 150 PS FLOOD KNUCKLE OPTION 1	10
	NF3LT5HOPOLE	NEW 3L 54T5HO POLE HEAD	32
	NF70INDCH	NEW INDUCTION COBRA HEAD 70W	6
CIVIC CENTER Total			479
FIRE STATION 16	13WCFLDIM	13 WATT CFL DIM	2
	15WLEDR30	LED 15WATT PAR30 SCREW IN	9
	1L4T8LP	(1) 4' 28W T-8 Lamp, (1) LP Prog Start Elec Bal	11
	2L2T8	(2) 2' 17W T-8 Lamps, (1) Prog Start Elec Bal	1
	2L4T8LP	(2) 4' 28W T-8 Lamps, (1) LP Prog Start Elec Bal	39
	3WCCSI	3W COLD CATHODE SCREW IN	3
	4L4T8LP	(4) 4' 28W T-8 Lamps, (1) LP Prog Start Elec Bal	17
	LEDMR16	LED MR16	8
	NF26TBX	NEW FIXTURE FLOOD 26W TBX	2
	NF3LT5HOPOLE	NEW 3L 54T5HO POLE HEAD	3
	NF3LT5HOWP	NEW 3L 54T5HO WALL PACK	2
FIRE STATION 16 Total			97
FIRE STATION 17	15WLEDR30	LED 15WATT PAR30 SCREW IN	2
	1L3T8	(1) 3' 25W T-8 Lamps, (1) Prog Start Elec Bal	13
	1L4T8LP	(1) 4' 28W T-8 Lamp, (1) LP Prog Start Elec Bal	1
	27WCFL	27 WATT CFL	10
	2L4T8LP	(2) 4' 28W T-8 Lamps, (1) LP Prog Start Elec Bal	21
	3L4T8LPIO	(3) 4' 28W T-8 Lamps, (1) LP Elec Bal IO	17
	4L4T8LP	(4) 4' 28W T-8 Lamps, (1) LP Prog Start Elec Bal	50
	8WLEDPAR20	LED 8WATT PAR20 SCREW IN	2
FIRE STATION 17 Total			116

FIRE STATION 18	1L3T8	(1) 3' 25W T-8 Lamps, (1) Prog Start Elec Bal	9
	1L4T8LP	(1) 4' 28W T-8 Lamp, (1) LP Prog Start Elec Bal	1
	27WCFL	27 WATT CFL	4
	2L3T8	(2) 3' 25W T-8 Lamps, (1) Prog Start Elec Bal	2
	2L4T8LP	(2) 4' 28W T-8 Lamps, (1) LP Prog Start Elec Bal	39
	3L4T8LPIO	(3) 4' 28W T-8 Lamps, (1) LP Elec Bal IO	4
	4L4T8LP	(4) 4' 28W T-8 Lamps, (1) LP Prog Start Elec Bal	32
	6L4T8LP	(6) 4' 28W T-8 Lamps, (2) LP Prog Start Elec Bal	3
FIRE STATION 18 Total			94
POLICE WING OF CIVIC CENTER	1383LED	RELAMP WITH LED 1383	24
	18WCF	18 WATT CF	4
	1L2T8	(1) 2' 17W T-8 Lamps, (1) Prog Start Elec Bal	1
	1L4T8LP	(1) 4' 28W T-8 Lamp, (1) LP Prog Start Elec Bal	1
	1X8R4T8ELEC	1X8 Refl, (4)FO28, (1) T8 Prog Start Elec Ball LP	2
	2L2T8	(2) 2' 17W T-8 Lamps, (1) Prog Start Elec Bal	5
	2L3T8	(2) 3' 25W T-8 Lamps, (1) Prog Start Elec Bal	18
	2L4T8LP	(2) 4' 28W T-8 Lamps, (1) LP Prog Start Elec Bal	144
	2L4UT86	(2) 30W U-lamp w/ (1) Prog Start Elec Bal (2x2) 6"-LP	4
	3L4T8LP	(3) 4' 28W T-8 Lamps, (1) LP Prog Start Elec Bal	17
	4L4T8LP	(4) 4' 28W T-8 Lamps, (1) LP Prog Start Elec Bal	5
	4L4T8LPIO	(4) 4' 28W T-8 Lamps, (2) LP prog Start Elec Bal-IO	11
	6L4T8LP	(6) 4' 28W T-8 Lamps, (2) LP Prog Start Elec Bal	29
	CATHKIT	T-1 XTRABRIGHT COLD CATHODE KIT	4
	NF3LT5HOPOLE	NEW 3L 54T5HO POLE HEAD	13
	NF3LT5HOWP	NEW 3L 54T5HO WALL PACK	3
	NF42TBXWP	NEW 42 WATT TBX WALL PACK	2
POLICE WING Total			287
PUBLIC LIBRARY	1L3T8	(1) 3' 25W T-8 Lamps, (1) Prog Start Elec Bal	24
	1L4T8LP	(1) 4' 28W T-8 Lamp, (1) LP Prog Start Elec Bal	92
	2L3T8	(2) 3' 25W T-8 Lamps, (1) Prog Start Elec Bal	12
	2L4T8LP	(2) 4' 28W T-8 Lamps, (1) LP Prog Start Elec Bal	18
	3L4T8LP	(3) 4' 28W T-8 Lamps, (1) LP Prog Start Elec Bal	18
PUBLIC LIBRARY Total			164
SENIOR CENTER	1L3T8	(1) 3' 25W T-8 Lamps, (1) Prog Start Elec Bal	40
	1L4T8LP	(1) 4' 28W T-8 Lamp, (1) LP Prog Start Elec Bal	65
	2L4T8LP	(2) 4' 28W T-8 Lamps, (1) LP Prog Start Elec Bal	9
	3L4T8LP	(3) 4' 28W T-8 Lamps, (1) LP Prog Start Elec Bal	36
	3L4T8LPIO	(3) 4' 28W T-8 Lamps, (1) LP Elec Bal IO	14
	6L4T8LP	(6) 4' 28W T-8 Lamps, (2) LP Prog Start Elec Bal	9
	LEDMR16	LED MR16	3
	NF100MH	NEW FLOOD KNUCKLE 100 MH	2
	NF2LT5GRN	NEW 2L 54T5HO POLE HEAD GREEN	12
	NF3LT5GRN	NEW 3L 54T5HO WALL PACK GREEN	2
SENIOR CENTER Total			192

EMC 4: Renewable Energy Measure: Photovoltaic Systems

	Location	Structure type	No. of arrays	kWdc	Panel type	Inverter Type
1	Civic Center	Canopy	6	288 ± 3	Hyundai, Trina, or equivalent	central or string
2	Fire Sta. 16	Roof	1	14 ± 3	Hyundai, Trina or equivalent	central or string
3	Fire Sta. 17	Canopy – tall T	1	39 ± 3	Hyundai, Trina , or equivalent	central or string
4	Fire Sta. 18	Canopy	1	24 ± 3	Hyundai, Trina, or equivalent	central or string
5	Library	Canopy	3-4	180 ± 3	Hyundai, Trina, or equivalent	central or string
6	Senior Center	Roof	1	33 ± 3	Hyundai, Trina, or equivalent	central or string
7	Shannon Center	Canopy	2-3	120 ± 3	Hyundai, Trina, or equivalent	central or string
8	Stager Gym	Canopy	1	30 ± 3	Hyundai, Trina, or equivalent	central or string

Scope of Work – General

Chevron ES shall provide installation of a solar photovoltaic (PV) system with a nominal capacity of 726 kWdc to be constructed on eight sites within the City: Civic Center, Fire Station 16, Fire Station 17, Fire Station 18, Library, Senior Center, Shannon Center, Stager Gym. Chevron ES installation includes detailed engineering, equipment procurement, installation, interconnection to utility, system start-up and commissioning services.

Scope of work shall include:

- Preparation of design drawings from the Chevron ES standard Division of the State Architect DSA] pre-check design package for submission to City Building Permit Department (Civic Center, FS16, FS17, FS18, Library, Senior Center, Shannon), DSA (Stager Gym), and local utility interconnection permit.
- Final layout drawings for Fire Marshall and customer review.
- Geotechnical evaluations necessary for design requirements.
- Utility (PG&E) interconnection drawings and application management services.
- Rebate administrative services for the purpose of submitting the application and documentation for PG&E California Solar Initiative (CSI) incentive, if any.
- Provide and coordinate with PG&E for the installation of the NGOM and NEM metering.
- Provide the CSI-required PMRS monitoring for five (5) years.
- Procurement of materials and equipment necessary for construction.
- Labor, supervision and coordination with the City for the installation of photovoltaic modules and supporting structures, electrical distribution and control systems, and one information kiosk.
- Installation of inverters and all necessary electrical equipment and conduits to connect to the electrical switchgear or meter. Two electrical shut-downs are anticipated at each site. Time of shutdown to be coordinated with the City, Facility Management, and PG&E and may include weekends.
- Solar canopy structure, which shall allow parking below and traffic circulation between canopies, shall be from Chevron ES standard, painted, canopy structure height and pier depth of eight (8) foot deep and assumes no de-watering, benching, shoring, or casing.
- Solar Canopy structures at Shannon Center shall include, for the purposes of creating a picnic area; ; installation of one picnic bench underneath each array including one accessible picnic bench.
- Installation of new lighting fixtures mounted under new parking canopies.
- Roof mounted systems shall be standard attachment to standing seam roof and assumes no structural modifications to building, roof repairs, or roof modifications. Additional costs for non standard attachment shall be calculated based upon final design. Cost for roof mounting system requiring structural building modifications shall be determined following final design.
- Includes connection to one kiosk display installed at City Hall showcasing the solar PV technology, real time tracking of production, savings and environmental benefits.
- All project management and construction management necessary for a full and complete installation.

- AutoCAD drawings and Operations & Maintenance Manuals upon project completion.
- Tree relocation of Ash and Locust at Civic Center and Library, to adjacent field site. All other trees shall be removed.
- Miscellaneous backfill and restoration of landscaping in areas of work.
- Start-up, test, and commission the systems in accordance with design plan and applicable industry standards.

Beneficial Use and therefore Substantial Completion of PV Systems: Unless otherwise provided below, shall occur when PG&E issues the Permission-To-Operate letter.

Project Schedule

Chevron ES shall incorporate in the Project Schedule reasonable allowances for:

- Securing permits and approvals, and required inspections
- Operations that cannot be suspended
- Delivery of materials and equipment
- Weather delays for conditions normal during the construction period

Assumptions, Exceptions, Exclusions:

- Time of work shall be normal business hours Monday through Saturday
- Chevron ES is not responsible for availability of rebates available through the CSI program or for any failure to qualify for or take advantage of such program.
- Work shall not include repairs, modifications, or upgrades to buildings or adjacent facilities not specifically shown unless damaged during the construction process.
- Work shall not include excavation, re-grading, installation of drainage systems, shoring of unstable soil or substructures.
- Work shall not include repair or upgrade of existing electrical, mechanical, or structural infrastructure.
- Work shall not include upgrades or modifications to existing non-compliant sites, structures or systems required to meet governmentally mandated codes or specifications.
- Cost for pier depth beyond eight (8) feet shall be determined upon final design and is based upon prevailing soil conditions, seismic and wind requirements, the presence of water, or undiscovered conditions such as subsurface obstructions.
- Cost for Americans with Disabilities Act ADA accessibility upgrades to existing buildings or parking lots for path of travel, if required, shall be calculated based upon final design.
- Remediation and/or removal of hazardous materials, hazardous wastes, or spoils Is not included in the scope of work.
- California Environmental Quality Act (CEQA) or other environmental studies, if required, shall be the responsibility of the City.
- Public Hearings, if required, shall be the responsibility of the City.
- Access to the parking lots shall be blocked to public access during construction for safety.
- Maintenance and operations of the solar PV system, if requested by Customer, will be provided at additional cost to be determined by the Parties.
- Right of Way at Stager Gym to be provided by the City.
- Final sizing and layout will be determined upon final design.

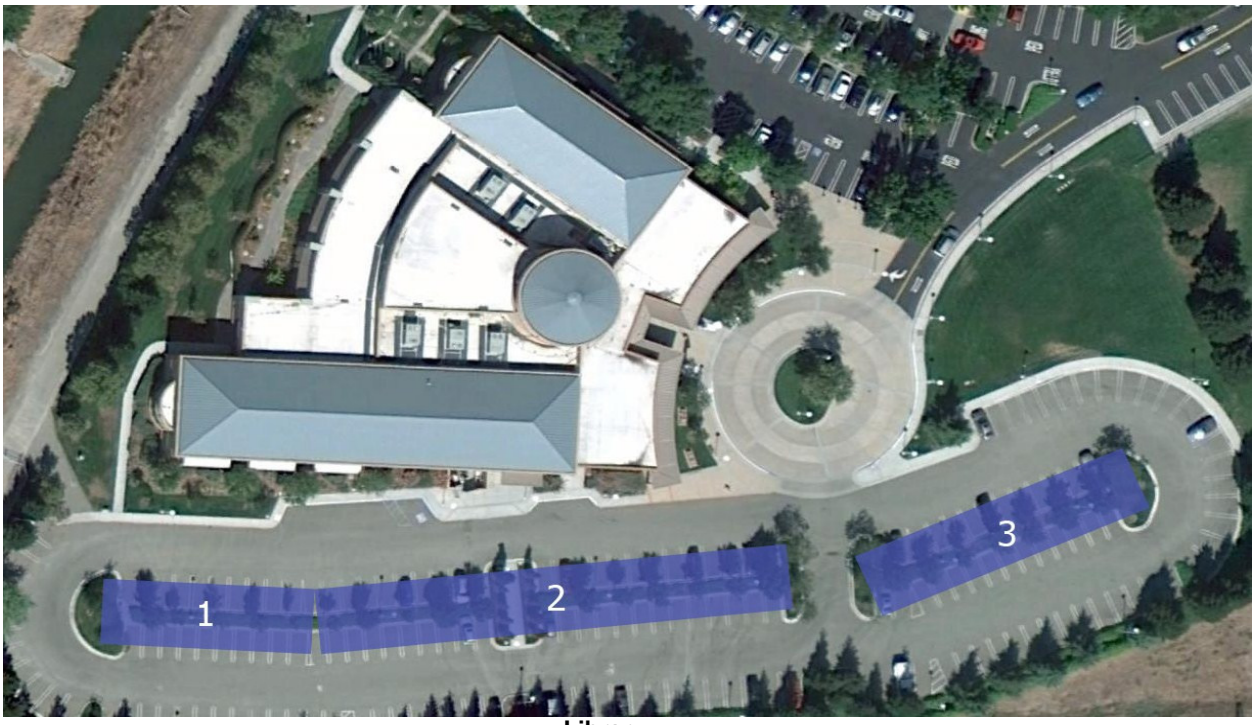
Photovoltaic Project Layouts

Civic Center/Police Station

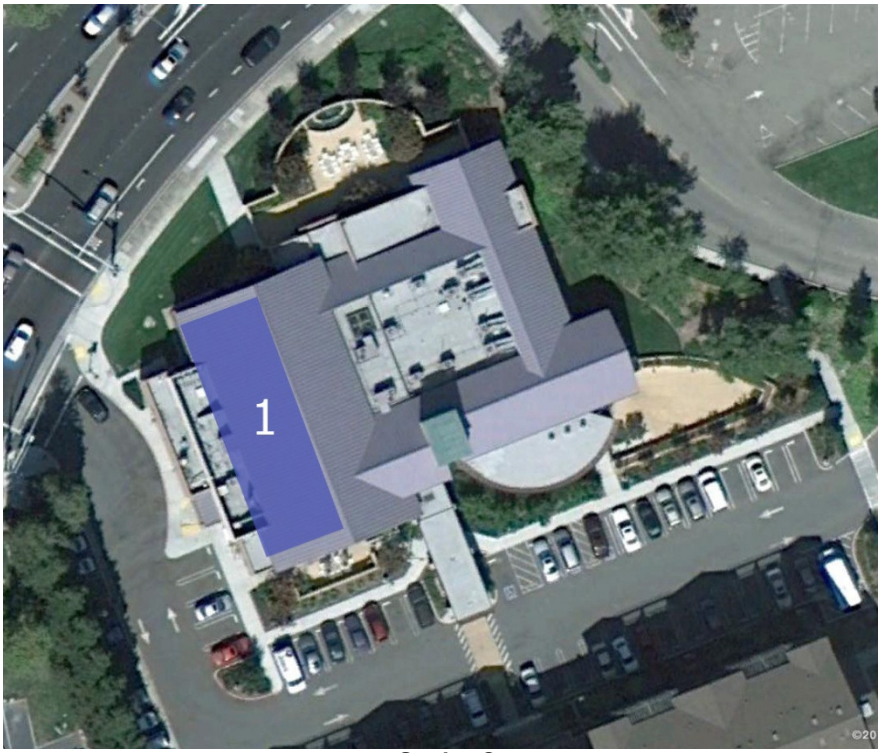
Fire Station 16

Fire Station 17

Fire Station 18



Library



Senior Center

Shannon Community Center

Stager Community Gym

ECM 5: Install Irrigation Controllers:

Existing Equipment

Site #	Site Name	Existing Controller	# WiredZones	Total Controllers
1	Swim Center	Sentar II	22	1
2	Civic Center	Sentar II	68	3
3	Fire Station 16	Sentar II	7	1
4	Fire Station 17	DX2	25	1
5	Fire Station 18	DX2	24	1
6	Heritage Park & Museum	DX2	49	2
7	Library	DX2	52	2
8	Senior Center	DX2	34	1
9	Shannon Community Ctr	DX2	12	1
10	Bray Commons	DX2	66	2
11	Mape	DX2	29	1
12	Ted Fairfield	DX2	59	2
13	Emerald Glen	DX2	368	10
14	Stage Coach	RME	18	1
15	Kolb	Sentar II	30	1

Chevron ES shall provide all labor, materials, and supervision necessary to:

- Perform Site Investigations
- Review existing conditions and develop installation plan
- Equipment Installation
- Flow Sensor Master Valve Setup Confirmation and Learn Flows
- Confirmation All Flow Data Is Entered into the Central System
- Train City Irrigation Team on Equipment and Software
- All Irrigation controllers will be installed to code with appropriate wiring and grounding rods. Communication of the controllers back to the central computer (or internet, if applicable) will be confirmed.

Site #	Site Name	Existing Controller	# WiredZones	Total Controllers
1	Swim Center	Sentar II	22	1
2	Civic Center	Sentar II	68	3
3	Fire Station 16	Sentar II	7	1

All the DX2 controllers are already on the central system but are not being adjusted for ET. It appears all (or most) the DX2 controllers also have Master Valves and Flow Sensors installed.

Scope:

Setup existing ET and Flow Sensing on three (3) DX2 controllers through existing Central Control.
Replace three (3) existing Sentar II controllers with new DX2 controllers and add them to the existing central system at the following locations: Swim Center, Civic Center, Fire Station 16.
Optimize the system to control irrigation through central control.

Irrigation Optimization at the following sites:

- Community Center
- Fire Station 16

- Fire Station 17
- Fire Station 18
- Heritage Park
- Library
- Senior Center
- Bray Commons
- Mape
- Ted Farifield
- Emerald Green Pre-School

ECM 6: Water Fixture Replacements in City-owned Buildings

Scope:

- Provide and install pint flush urinals
- Provide and install 1.5 gpm showerheads.
- Provide and install aerators in all the bathrooms, it is recommended to replace any aerator with a flow over 1.5gpm to a low-flow 0.5gpm aerator.

- **Civic Center**

Existing Device	Retrofit Device	QTY.
1.5 gpf small urinal	1.0 pint small urinal	3
1.5 gpm sink aerators	0.5 gpm sink aerators	12
2.5 gpm shower heads	1.5 gpm shower heads	4

- **Police Station**

Existing Device	Retrofit Device	QTY.
1.0 gpf large/sm. urinal	1.0 pint large/sm. urinal	3
1.5 gpm sink aerators	0.5 gpm sink aerators	14
2.5 gpm shower heads	1.5 gpm shower heads	5

- **Community Center**

Existing Device	Retrofit Device	QTY.
1.0 gpf large/sm. urinal	1.0 pint large/sm. urinal	3
2.2 gpm sink aerators	0.5 gpm sink aerators	4

- **Fire Station 16**

Existing Device	Retrofit Device	QTY.
1.0 gpf large/sm. urinal	1.0 pint large/sm. urinal	2
1.5 gpm sink aerators	0.5 gpm sink aerators	5
2.5 gpm shower heads	1.5 gpm shower heads	3

- **Fire Station 17**

Existing Device	Retrofit Device	QTY.
2.0 gpm sink aerators	0.5 gpm sink aerators	8
2.5 gpm shower heads	1.5 gpm shower heads	4

- **Fire Station 18**

Existing Device	Retrofit Device	QTY.
2.2 gpm sink aerators	0.5 gpm sink aerators	5
2.5 gpm shower heads	1.5 gpm shower heads	2

- **Heritage Park Museum**

Existing Device	Retrofit Device	QTY.
1.0 gpf large/sm. urinal	1.0 pint large/sm. urinal	1
2.0 gpm sink aerators	0.5 gpm sink aerators	3

- **Public Library**

Existing Device	Retrofit Device	QTY.
1.0 gpf large/sm. urinal	1.0 pint large/sm. urinal	3
2.2 gpm sink aerators	0.5 gpm sink aerators	4

- **Senior Center**

Existing Device	Retrofit Device	QTY.
1.0 gpf large/sm. urinal	1.0 pint large/sm. urinal	2
2.2 gpm sink aerators	0.5 gpm sink aerators	4

ECM 9: Public Safety Complex Roof

Scope:

- Demolish existing roof membrane and insulation
- Remove all roof mounted HVAC equipment and associated piping
- Furnish and install R30 insulation
- Furnish and install 115mil TPO membrane white roof approx. 32,000 sq.ft.

Exclusions:

- Remove and replace rotted wood cants, if any exist
- Remove and replace damaged or warped metal deck
- Undiscovered conditions that exist and cannot be inspected until demolition is complete.Price for any undiscovered conditions will be at cost plus negotiated OH and Profit.

ECM 10: Public Safety Complex Provide and install HVAC unit for 14,000 sq.ft. section of Clark Ave. office space

Scope:

- Furnish and install one Mammoth self-contained unit of a nominal 50 ton cooling capacity, Model # CLBEHEFP-504R-W560-78-VAV ; OPERATING WEIGHT OF 21,000 LBS.; 460VOLTAGE, 3-PHASE, 60Hz; fan capacity 21500 CFM; using Refrigerant R-410a
- Crane and Rigging as necessary to set unit on rooftop
- Receive information from City of Dublin structural engineer for roof curb and support below roof membrane
- Structural supports or enhancement to the building (if necessary) to support the Mammoth unit will be provided at cost plus negotiated OH and Profit.

Exclusions, pending final design:

- Structural enhancements to existing building
- Structural supports for mammoth unit

Criteria for Achieving Beneficial Use:

i) CHILLER - Two weeks of uninterrupted supply of GPM flows within 10% of design values at a supply temperature of 45℉ or lower. Uninterrupted operation is defined as: no involuntary shutdowns due to mechanical difficulties. Flows shall be established by a test and balance report. Temperature performance shall be established by EMS trend logs or by manual spot checks of a temperature gauge by a Chevron ES employee.

PUMP - Two weeks of uninterrupted supply of GPM flows within 10% of design values. Uninterrupted operation is defined as: no involuntary shutdowns due to mechanical difficulties. Flows shall be established by a test and balance report.

MOTORS/VFDs/GENERATORS - Uninterrupted operation for a duration as necessary, with a maximum of 2 weeks, to determine proper operation.

ENERGY MANAGEMENT SYSTEM - Two weeks of uninterrupted operation of controlled equipment while providing reasonable comfort. Uninterrupted operation is defined as: no involuntary shutdowns due to control problems. Reasonable comfort is defined as: maintaining occupied spaces controlled by the system within +/- 4 degrees of setpoint. Comfort performance shall be established by EMS trend logs or by manual spot checks of temperatures by a Chevron ES employee.

EXCLUSIONS

- Dewatering of piers
- Pier depth beyond 8 foot deep
- Piers requiring shoring/benching due to sandy soil
- Structural or seismic modifications to buildings, where code requirements have changed since installations
- Environmental Impact Reports
- EIR mitigations
- ADA accessibility upgrades to existing buildings, parking lots, or path of travel
- Upgrades to existing systems, where code requirements have changed
- Special Helicopter access
- Emergency ballasts
- Under cabinet linear fluorescent
- Existing occupancy sensors
- Faulty switch leg circuits
- Lighting circuit grounding
- Street light fuse
- Street light photo-cell receptacle
- Street light RP-8 light level for neighborhoods
- Repair or replacement of street light arm or pole
- Missing street light badge numbers
- Non-Cobra style decorative fixtures (LS2-A) shall be retrofitted with Bridgelux LED module for cost, plus mark-up
- Street lights not listed on BRIO street light inventory or above BRIO quantity shall be installed at cost, plus mark-up
- Emerald Glen “Decorative” Post-top fixtures not included in scope.
- Overtime or weekend work
- DSA plan check fees
- DSA inspector costs
- Water hose bibs for washing the panels
- Decorative fascia along the perimeter of the panels or any decorative covering underneath the panels

- Repair or replacement of existing housekeeping pads, concrete pads, or base repair of existing walkway lighting, except as noted
- Painting, unless specified
- Smoke detectors and fire alarm system work

Additional clarifications:

- Removal and disposal of hazardous materials, including asbestos containing materials, to be by the Customer (except as noted above). If Chevron ES encounters material suspected to be hazardous, Chevron ES will notify the Customer representative and stop further work in this area until the material is removed.
- Chevron ES shall require the cooperation of Customer personnel to secure the area and to provide traffic redirection during rigging operations and during the move-in and move-out of large equipment.
- No allowance has been made for structural upgrades to existing structures, except as noted.
- No allowance has been made for screening of new or existing equipment, unless specifically noted above.
- No temporary heating or cooling services have been included in the pricing. Chevron ES will attempt to phase the construction in such a way as to avoid any complete interruptions of service.
- Chevron ES standard construction means & methods will be used.
- Customer will provide access to the facilities, laydown areas at the work sites, and a reasonable number of parking spaces for Chevron ES and Chevron ES's subcontractor vehicles in parking lots at the respective Facilities.
- All work will be performed during normal work hours; no overtime hours are included in this proposal unless otherwise stated. The lighting retrofit work will be performed so as not to unreasonably interfere with the building schedule.
- The Scope of Work assumes that, unless specifically identified otherwise, all existing systems are functioning properly and are up to current codes. Chevron ES shall not be responsible for repairs or upgrades to existing systems, other than those specifically identified herein. No allowances have been made to bring existing systems up to code.
- No allowance has been made to repair or replace damaged or inoperable existing equipment that is not specifically being replaced under the Scope of Work. When such items are discovered, Chevron ES will immediately notify the Customer representative.
- No allowance has been made for underground obstructions or unsuitable soil conditions encountered during trenching or other excavation.
- The PV shade structure is not weather tight and will not provide shelter from rain.
- Chevron ES has assumed project construction will be allowed to proceed smoothly and in a continuous flow. No allowance has been made to demobilize and remobilize resources due to schedule interruptions.
- Temporary utilities to be provided by Customer at no cost (trailer power, phone lines, construction power, etc.).